AMENDMENTS TO THE CLAIMS:

1.   (Currently Amended) A method for supporting downlink JD (joint detection) in a TDD CDMA communication network system, the method comprising:

judging whether CAI (code allocation information) in a downlink timeslot will change in a next TTI (transmission time interval);

inserting changed CAI as a specific control information into a specified field in a traffic burst in the downlink timeslot corresponding to current TTI only if the CAI will change, the changed CAI comprising spreading code resources associated with each of a plurality of UEs that uses the downlink timeslot; and

sending the traffic burst ~~containing~~ comprising the specific control information to each of the UEs in the downlink timeslot via a downlink channel [[.]] , wherein the traffic burst sent to each of the plurality of UEs comprises spreading code resources associated with all of the UEs that use the downlink timeslot.

2.   (Original) The method of claim 1, further comprising:

when establishing connection with a UE, the network system sends the initial CAI to the UE.

3.   (Previously Presented) The method of claim 2, wherein judging further includes:

judging that the CAI changes if at least one active UE leaves the downlink timeslot;

reclaiming the spreading code resource released by the UE;

wherein the changed CAI in step of inserting is the CAI after the spreading code resource is reclaimed.

4.   (Previously Presented) The method of claim 2, wherein judging further includes:

judging that the CAI changes if at least one UE joins the downlink timeslot;

allocating spreading code resource to the UE;

wherein the changed CAI in step of inserting is the CAI after the spreading code resource is allocated.

5.   (Previously Presented) The method of claim 2, wherein judging further includes:

judging that the CAI changes if the spreading code resource in the downlink timeslot is reallocated to realize optimized configuration of the resource in the downlink timeslot;

wherein the changed CAI in step of inserting is the CAI after the spreading code resource is reallocated.

6.   (Previously Presented) The method in claim 1, wherein the specific control information allows each UE in the downlink timeslot to perform one of the two JD methods of ZF-BLE and MMSE-BLE.

7.   (Currently Amended) A method for supporting downlink JD to be performed by a UE

in a TDD CDMA communication network system, the method comprising:

receiving a traffic burst in a downlink timeslot transferred by the network system via

downlink channel;

detecting whether the traffic burst ~~contains~~ comprises code allocation information (CAI) in a

next TTI in the downlink timeslot;

extracting the CAI only if the traffic burst ~~contains~~ comprises the CAI, the CAI comprising

spreading code resources associated with all of a plurality of other UEs that ~~uses~~ use the downlink

timeslot; and

performing next-phase JD algorithm to decrease interference by using the CAI.

8.   (Original) The method of claim 7, further comprising:

the UE receives the initial CAI from the network system when the UE establishes connection

with the network system.

9.   (Original) The method of claim 8, wherein the JD algorithm is one of ZF-BLE and

MMSE-BLE.

10.   (Currently Amended) A method for supporting downlink single-user JD in a TDD

CDMA communication network system, the method comprising:

judging whether an ACN (active code number) in a downlink timeslot will change in a next

TTI;

inserting changed ACN as a specific control information into a specified field in a traffic

burst in downlink timeslot corresponding to current TTI only if the ACN will change, the ACN

comprising spreading code resources associated with a plurality of UEs that ~~uses~~ use the downlink

timeslot;

sending the traffic burst ~~containing~~ comprising the specific control information to each of the

UEs in the downlink timeslot via downlink channel [[.]] , wherein the traffic burst sent to each of the

plurality of UEs comprises spreading code resources associated with all of the UEs that use the

downlink timeslot

11.   (Previously Presented) The method of claim 10, further comprising:

the network system sending an initial ACN to the UE when the network system establishes

connection with the UE.

12.   (Original) The method of claim 11, wherein the specific control information allows

each UE in the downlink timeslot to perform an MMSE-BLE-SD-JD algorithm.

13.   (Currently Amended) A method performed by a UE for supporting downlink single-user JD in a TDD CDMA communication network system, the method comprising:

receiving a traffic burst transferred by the network system via downlink channel in a downlink timeslot;

detecting whether the traffic burst ~~contains~~ comprises an active code number (ACN) in the next TTI in the downlink timeslot, the ACN comprising spreading code resources associated with all of a plurality of other UEs that ~~uses~~ use the downlink timeslot;

extracting the ACN only if the traffic burst ~~contains~~ comprises the ACN; and

performing the next-phase JD algorithm to decrease interference by using the ACN.

14.   (Previously Presented) The method of claim 13, wherein prior to receiving a traffic burst transferred by the network system the UE receives the initial ACN from the network system when the UE establishes connection with the network system.

15.   (Original) The method of claim 14, wherein the JD method is an MMSE-BLE-SD method.

16.   (Currently Amended) A network system for supporting downlink JD, comprising:

a judging unit configured to judge whether code allocation information (CAI) in a downlink timeslot will change in a next TTI;

an inserting unit configured to insert changed CAI as a specific control information into a specified filed in a traffic burst in the downlink timeslot corresponding to current TTI only when the CAI changes, the changed CAI comprising spreading code resources associated with each of a plurality of UEs that uses the downlink timeslot;

a sending unit configured to send the traffic burst ~~containing~~ comprising the specific control information to each of the UEs in the downlink timeslot via a downlink channel [[.]] , wherein the traffic burst sent to each of the plurality of UEs comprises spreading code resources associated with all of the UEs that use the downlink timeslot.

17.   (Original) The network system of claim 16, wherein the sending unit sends the initial CAI to the UE when establishing connection with the UE.

18.   (Original) The network system of claim 16, wherein the judging unit judges that the CAI changes if at least one active UE leaves the downlink timeslot or at least one UE joins the downlink timeslot or the spreading code resource in the downlink timeslot is reallocated.

19.   (Currently Amended) A UE for supporting downlink JD, comprising:

a receiving unit configured to receive a traffic burst transferred by a network system via a downlink channel in a downlink timeslot;

a detecting unit configured to detect whether the traffic burst ~~contains~~ comprises code allocation information (CAI) in a next TTI in the downlink timeslot, the CAI comprising spreading code resources associated with all of a plurality of other UEs that ~~uses~~ use the downlink timeslot;

an extracting unit configured to extract the CAI only when the traffic burst ~~contains~~ comprises the CAI;

a performing unit configured to perform next-phase JD algorithm to decrease interference by using the CAI.

20.   (Original) The user equipment of claim 19, wherein the receiving unit receives the initial CAI from the network system when establishing connection with the network.

21.   (Currently Amended)   A network system for supporting downlink single-user JD, comprising:

a judging unit configured to judge whether an active code number (ACN) in a downlink timeslot will change in a next TTI;

a specified field in a traffic burst in the downlink timeslot corresponding to current TTI only when the ACN changes, the ACN comprising spreading code resources associated with a plurality of UEs that ~~uses~~ use the downlink timeslot; and

a sending unit configured to send the traffic burst ~~containing~~ comprising the specific control information to each of the UEs in the downlink timeslot via downlink channel [[.]] , wherein the traffic burst sent to each of the plurality of UEs comprises spreading code resources associated with all of the UEs that use the downlink timeslot.

22.   (Original)   The network system of claim 21, wherein the sending unit sends the initial ACN to the UE when establishing connection with the UE.

23.   (Currently Amended)   A UE for supporting downlink single-user JD, comprising:

a receiving unit configured to receive a traffic burst transferred by a network system via a downlink channel in a downlink timeslot;

a detecting unit configured to detect whether the traffic burst ~~contains~~ comprises an active code number (ACN) in the downlink timeslot in a next TTI;

an extracting unit configured to extract the ACN only when the traffic burst contains the ACN, the ACN comprising spreading code resources associated with all of a plurality of other UEs that ~~uses~~ use the downlink timeslot; and

a performing unit configured to perform next-phase single-user JD algorithm to decrease interference by using the ACN.

24.   (Original) The UE of claim 23, wherein the receiving unit receives the initial ACN from the network system.